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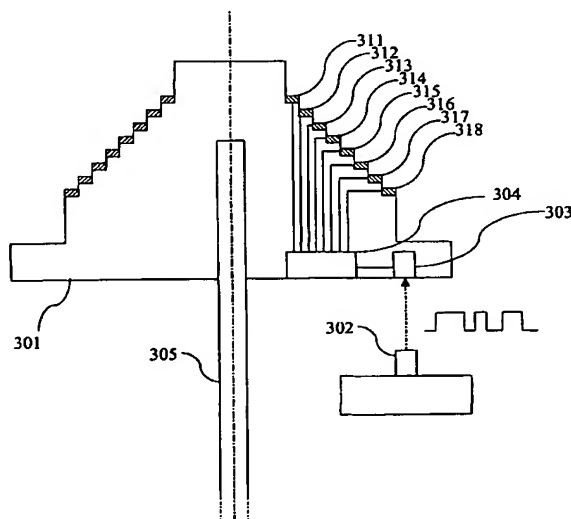
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[Continued on next page]

(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: The invention relates to an optical scanning device for scanning an information carrier comprising a plurality of information layers which optical properties depend on a potential difference applied between two electrodes. The optical scanning device comprises a fixed part comprising means (302) for generating a signal comprising information about a selected information layer, and a rotating part comprising means (301) for receiving the information carrier. The receiving means comprise a plurality of contacts (311-318) for connecting the electrodes, means (303) for detecting the signal, means (304) for decoding the signal and means (304) for applying a potential difference between the contacts connected to the electrodes corresponding to the selected information layer.

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SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B

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Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 12, 29 October 1999 (1999-10-29) -& JP 11 185288 A (AOKI TAKESHI), 9 July 1999 (1999-07-09) abstract paragraph '0006!; figure 1	1, 10
A	US 4 701 880 A (ICHIHARA KATSUTAROU) 20 October 1987 (1987-10-20) the whole document	1, 10
A	PATENT ABSTRACTS OF JAPAN vol. 0081, no. 92 (P-298), 4 September 1984 (1984-09-04) & JP 59 079443 A (NEC HOME ELECTRONICS KK), 8 May 1984 (1984-05-08) abstract	1, 10



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information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 11185288	A	09-07-1999	NONE	
US 4701880	A	20-10-1987	JP 1829492 C JP 60236119 A EP 0164577 A1	15-03-1994 22-11-1985 18-12-1985
JP 59079443	A	08-05-1984	NONE	